

Title (en)  
Production of fluorocarbon compounds.

Title (de)  
Herstellung von Fluorkohlenstoffverbindungen.

Title (fr)  
Production de composés de fluorocarbone.

Publication  
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Application  
**EP 94307579 A 19941014**

Priority  
ZA 937644 A 19931014

Abstract (en)  
The invention provides a method and installation for the production of a desired fluorocarbon compound, which includes the steps of providing a high temperature zone; and feeding at least one input material into the high temperature zone to generate a body of hot gas including fluorine-containing species and carbon-containing species. The molar C:F ratio in the body of hot gas is controlled at a selected value between about 0,4 and 2; and the specific enthalpy of the body of hot gas is controlled between about 1kWh/kg and about 10kWh/kg for a time interval, so that a reactive thermal gaseous mixture forms, containing reactive species including reactive fluorine-containing precursors and reactive carbon-containing precursors. Thereafter the reactive thermal mixture is cooled at a cooling rate and to a cooling temperature selected to produce an end product including the desired fluorocarbon compound. The input material is typically a C1-C10 perfluorinated carbon compound of the general formula  $C_nF_m$  in which  $0 < n \leq 10$ , and  $m = 2n$ ,  $2n + 2$ , or  $2n - 2$  where  $n > 1$ , for example a gaseous fluorocarbon such as tetrafluoromethane (CF<sub>4</sub>).

IPC 1-7  
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